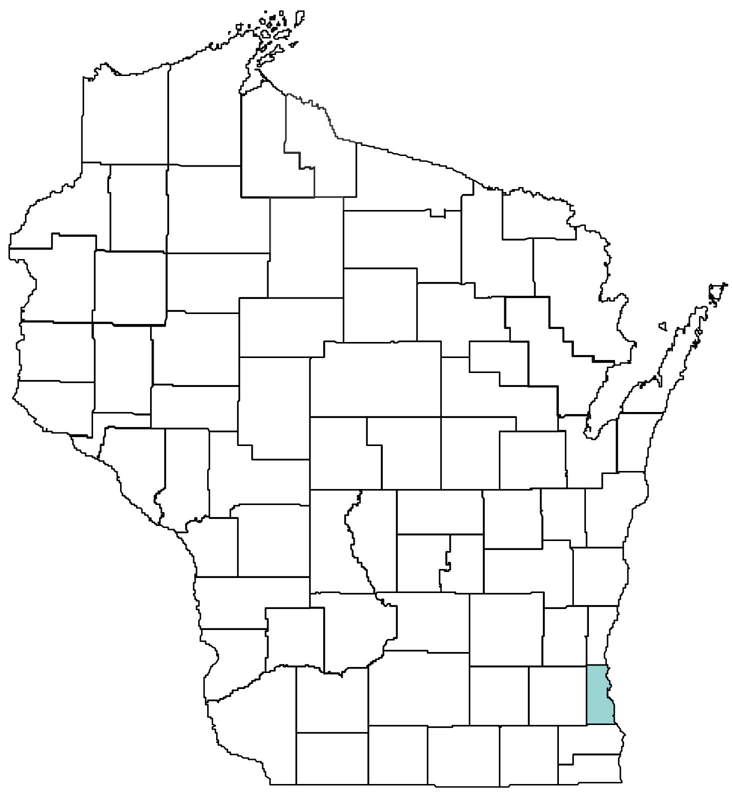
Workforce Development Area Profile

Milwaukee Wisconsin

Milwaukee County



The labor market is a constant ebb and flow of supply and demand. Too little demand for workers creates too much supply and unemployment increases. But too little supply of workers means job vacancies and lack of employment growth.

Every Workforce Development Area in the state should anticipate a tight labor supply condition by the end of the next decade. Planners in each area must understand the unique set of employment characteristics in their region to development a strategy to meet a future where demand will exceed supply.

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State of Wisconsin
Department of Workforce Development
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Industry employment and projections

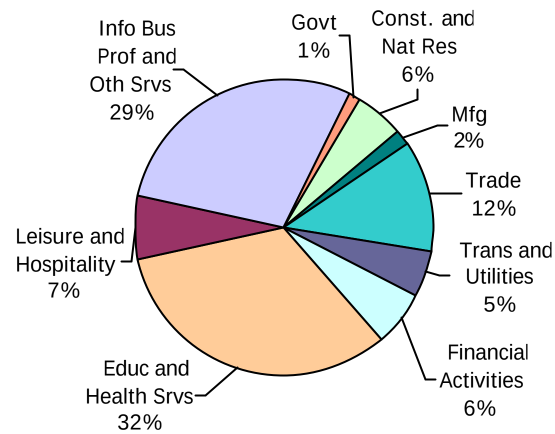
It is imperative for those involved in workforce and economic development to understand the economic and demographic directions of their communities. This profile summarizes current and projected industry, occupation, labor force and demographic information based upon requests and feedback from a diverse customer-base. Because the Milwaukee WDA (Milwaukee County) is so economically integrated with the WOW WDA (Waukesha, Ozaukee and Washington counties) much of the industry and occupational data in this profile is combined representing all four counties, otherwise known as the Milwaukee-Waukesha-West Allis Metropolitan Statistical Area.

The table at the bottom of the page lists the region's industry sector growth forecast. The total number of nonfarm jobs in the Milwaukee-WOW Workforce Development Areas is projected to increase 16 percent (+131,400 jobs) totaling just shy of one million jobs by 2012. Goods-producing sectors in the combined regional economy are projected to represent 19 percent of total employment by 2012, down from 21 percent in 2002. Services-providing industry sectors will increase from 79 percent of employment to about 81 percent by 2012. The WOW and Milwaukee WDAs, combined, will likely maintain about 28 percent of Wisconsin's total nonfarm employment.

The Milwaukee-WOW rate of overall job growth, 15.7 percent, is projected to be faster than the state's growth of 13.3 percent and will be Wisconsin's fastest growing region. The region's faster job growth, roughly translated, indicates that close to one of every three new Wisconsin jobs by 2012 will be within this four-county area exemplifying how crucial this region is to the state's economy.

The bar graph on the bottom of page 2 shows that the combined Milwaukee-WOW WDAs three largest employing industry sectors are projected to hold their rankings as of 2012. The most notable point of the display is that although manufacturing will retain its prominence in the region, it is projected to lose share of total employment declining from 17 percent of the total to about 15 percent by 2012. This

Distribution of Job Growth by Industry Sectors in Milwaukee-WOW Area in Wisconsin: 2002 - 2012



Industry Projections for Milwaukee-WOW Workforce Development Area, 2002-2012

Industry Title	Employment 2002 Estimate	Employment 2012 Projected	Ten-year change Numeric	Ten-year change Percent
Total Non-farm Employment	833,200	964,300	131,100	15.7%
Construction/Mining/Natural Resources	33,750	40,990	7,240	21.5%
Manufacturing	143,860	146,270	2,410	1.7%
Fabricated Metal Products	23,470	24,020	550	2.3%
Machinery Mfg	24,140	24,980	840	3.5%
Electrical Equipment, Appliance, and Component Mfg	14,660	14,760	100	0.7%
Trade	125,710	141,170	15,460	12.3%
Food and Beverage Stores	16,830	18,010	1,180	7.0%
Transportation and Utilities (Including US Postal)	35,610	42,630	7,020	19.7%
Financial Activities	57,420	64,980	7,560	13.2%
Education and Health Services (Incldg state & local govt. ed. & hosp.)	162,870	206,240	43,370	26.6%
Ambulatory Health Care Services	30,540	42,850	12,310	40.3%
Hospitals (Including state & local govt.)	33,560	40,930	7,370	22.0%
Leisure and Hospitality	64,570	73,100	8,530	13.2%
Information/Prof Services/Other Services	169,000	207,230	38,230	22.6%
Government (Excluding USPS, state & local govt. ed. and hosp.)	40,420	41,700	1,280	3.2%

Source: WI DWD, Office of Economic Advisors, September 2004

does not mean that manufacturing employers will not add jobs—manufacturing employment is projected to grow 1.7 percent by 2012. The fact is that other industries are projected to grow more quickly and robustly gaining a higher share of the labor market in the coming years.

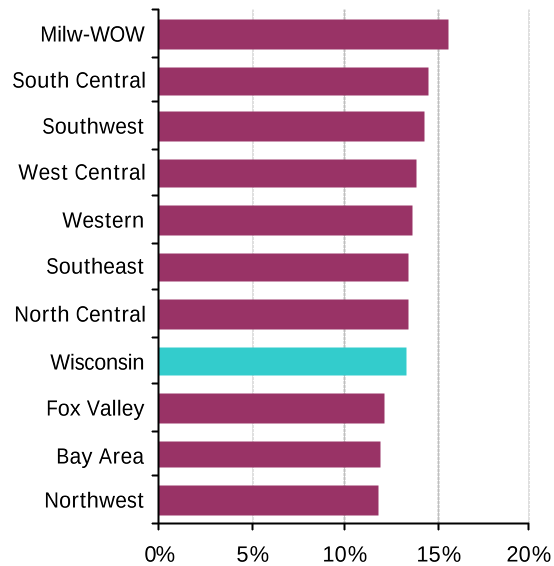
Education and health services; and information, professional, business and other services sectors are both projected to pick up significant shares of the Milwaukee-WOW regional employment base. The sectors projected to lose regional employment share are manufacturing; total trade; financial activities; leisure and hospitality; and government employment. The reader should note that none of the sectors losing employment share are projected to actually decline in employment, which speaks to the impact that the higher-growth sectors will have on the metro economy.

The pie-graph on page 1 distributes the region's new job creation by industry as of 2012. Almost one out of every three new jobs in the region will be in the education and health services sector, while one out of every 50 new jobs will be in manufacturing. Thirty percent of new jobs will be in the information, professional, business and other services sector with the likelihood that the majority of this sector's employment will be centralized in the professional and business services industry.

The size and quickness of this metropolitan area's job growth will skew towards the services-providing industries. Education and health services employment will not only add the most jobs of any sector (+43,300 jobs), but is also projected to be the fastest growing (+27%). The combined sector of information, professional, business and other services is projected to add 38,230 more jobs by 2012 for growth of about 23 percent. These two sectors alone will have such an impact on the metro area labor market that if they were excluded from these projections, the local job market would increase by only 50,000 jobs for growth of ten percent instead of the projected 131,100-job growth. Construction/mining/natural resources employment has the largest and fastest growth projection among the good-producing sectors adding over 7,000 more jobs (+21.5%), though this sector will continue to comprise only about four percent of the region's employment base.

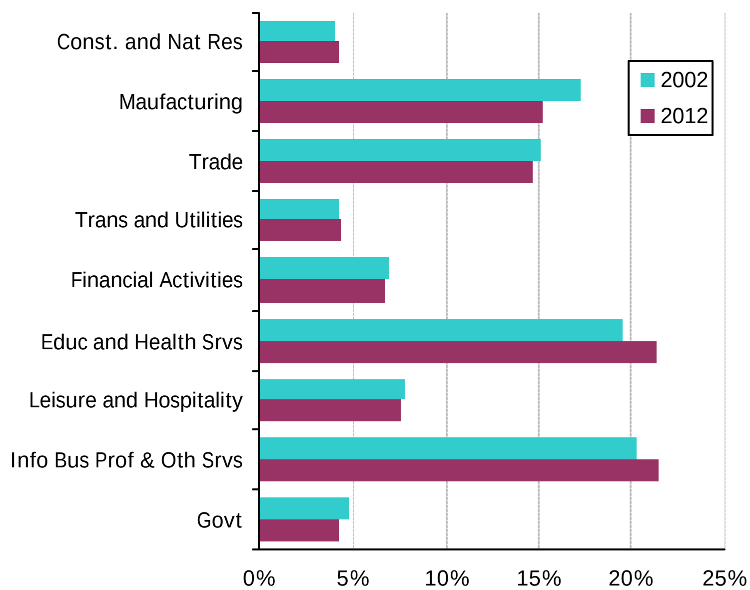
The industry sectors showing below regional-average growth are manufacturing, 1.7 percent growth; government, 3.2 percent; wholesale and retail trade, 12.3 percent; financial activities, 13.2 percent; and leisure and hospitality, 13.2 percent. These slower growing sectors, combined, are projected to add approximately 35,000 jobs between 2002 and 2012 or about one out of every four new jobs.

Changes in Employment for Workforce Development Areas in Wisconsin: 2002 - 2012



Source: WI DWD, Office of Economic Advisors, Sept. 2004

Distribution of Jobs by Industry Sectors in Milwaukee-WOW Area in Wisconsin: 2002 - 2012



Source: WI DWD, Office of Economic Advisors, September 2004

Employment and wages

One out of every six jobs in Wisconsin are in the Milwaukee WDA and these jobs profoundly influence the state's average wages. The Milwaukee WDA, on an average annual basis, is the highest paying WDA in the state and as a county ranks 2nd highest trailing Waukesha County's average wage of $38,578. Every industry sector in the Milwaukee WDA pays higher than its corresponding statewide average.

The overall annual salary paid in the WDA is $37,942; fourteen percent higher than the statewide average. There are a multitude of reasons for such a significant difference, but the most significant difference involves the workers themselves.

The salary differential is rooted in the *types* of workers employed in the region's industries. For example, two companies of the same industry, even in the same county, can have different overall occupational compositions commanding different overall wages. Likewise, the length of workweek or number of weeks worked in a year can vary from employer to employer. In short, this means that industry wage comparisons between regions may be more of a comment on occupations, than wholly on the industries themselves. The occupational composition of the Milwaukee WDA includes a greater number of occupations that tend to earn higher than average wages. Employers in Milwaukee industries have higher than average employment in computer and mathematical; architecture and engineering; business and financial operations; healthcare practitioners and technical; and management occupations. Most of the occupations in these broad groups have higher-than-average wages.

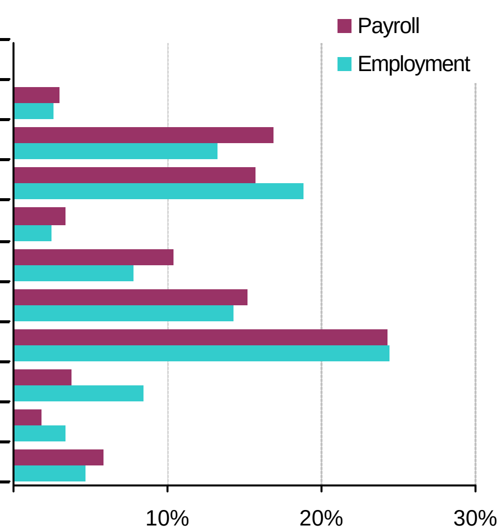
2003 Average Annual Wage by Industry Division in Milwaukee WDA

	Average Annual Wage		Percent of	1-year
	Wisconsin	Milwaukee	Wisconsin	% change
All Industries	$ 33,423	$37,942	114%	3.4%
Natural resources	$ 25,723	$45,157	176%	11.1%
Construction	$ 40,228	$45,021	112%	2.0%
Manufacturing	$ 42,013	$48,256	115%	4.5%
Trade, Transportation, Utilities	$ 28,896	$31,675	110%	-0.4%
Information	$ 39,175	$50,939	130%	Not avail.
Financial activities	$ 42,946	$50,321	117%	6.0%
Professional & Business Services	$ 38,076	$40,352	106%	3.5%
Education & Health	$ 35,045	$37,796	108%	5.8%
Leisure & Hospitality	$ 12,002	$16,466	137%	-1.0%
Other services	$ 19,710	$20,876	106%	0.5%
Public Admininistration	$ 35,689	$47,004	132%	8.3%

Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

2003 Employment and Wage Distribution by Industry in Milwaukee WDA

	Employment		
	Annual average	1-year change	Total Payroll
Natural Resources	120	-2	$ 5,418,884
Construction	12,595	-244	$ 567,037,752
Manufacturing	66,215	-3,355	$ 3,195,278,123
Trade, Transportation, Utilities	93,989	-1,485	$ 2,977,068,406
Information	12,292	Not avail.	$ 626,146,386
Financial Activities	39,090	-401	$ 1,967,064,110
Professional & Business Services	71,279	-1,240	$ 2,876,264,042
Education & Health	121,226	-774	$ 4,581,912,278
Leisure & Hospitality	42,494	600	$ 699,700,652
Other services	16,407	-237	$ 342,516,920
Public Administration	23,317	-48	$ 1,095,998,228
Not assigned	Suppressed	Not Avail.	Suppressed
All Industries	499,055	-7,186	18,935,003,627



Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

Significant industries

Top Five Industries in Milwaukee WDA

	March-2004		Numeric Employment Change	
Industry	**Establishments**	**Employees**	**2003 - 2004**	**1999 - 2004**
Educational Services	230	44,384	184	3,809
Administrative and Support Services	849	35,401	765	-4,274
Food Services and Drinking Places	1,177	28,838	-7	469
Hospitals	18	28,484	681	2,248
Professional and Technical Services	1,849	23,045	-497	-1,994

Source: DWD, Bureau of Workforce Information, Quarterly Census of Employment and Wages

This section of the profile examines the five largest industries in the Milwaukee WDA and highlights their most significant occupational employment. The list is more industry-specific than the industry sector lists on pages 1 and 2, which use a broader classification.

The reader should keep in mind that these listed industries could be broken out into even more specific component industries, but due to the profile's brevity and its allowance for only a limited number of industries it would not reflect an adequate amount of regional industry employment diversity. Please contact the author if you would like more specific industries rankings.

The Milwaukee WDAs five largest industries as of March 2004 accounted for one out of every three regional jobs.

Share of jobs in top five industries in Milwaukee WDA

I. Education Services

This industry includes both publicly and privately-owned establishments though the majority of this sector's employment is in K-12 public school districts and technical college campuses, which are part of local government ownership. The University of Wisconsin campus is state government-owned. Parochial schools and private colleges such as Carroll College and Marquette University are also included in this industry. Total employment is expected to increase by 15 percent from 2002 to 2012 adding over 2,500 more jobs. Its larger occupational needs will be focused primarily in K-12 teachers and support staff.

The impetus for this sector's growth is rooted both demographically and economically. The Milwaukee WDA has maintained a relatively stable school-aged population and should continue despite an overall aging population. Economically, the current and projected changes in the area's job base have increased the demand for skills training and re-training at the region's excellent technical college campuses. Vocational training and other forms of adult education will likely maintain their appeal over the short– and medium-term as employers' occupational demands evolve.

Top 20 Occupations in Wisconsin in Education Services Ranked by number of jobs projected in 2012

Elementary School Teachers, Except Special Education
Secondary School Teachers, Except Special and Vocational Education
Teacher Assistants
Middle School Teachers, Except Special and Vocational Education
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Secretaries, Except Legal, Medical, and Executive
Vocational Education Teachers, Postsecondary
Education Administrators, Elementary and Secondary School
Special Ed. Teachers, Preschool, Kindergarten, and Elementary School
Kindergarten Teachers, Except Special Education
Education Administrators, Postsecondary
Educational, Vocational, and School Counselors
Executive Secretaries and Administrative Assistants
Special Education Teachers, Secondary School
Vocational Education Teachers, Secondary School
Special Education Teachers, Middle School
Business Teachers, Postsecondary
Librarians
Bookkeeping, Accounting, and Auditing Clerks
Bus Drivers, School

Source: WI DWD, Office of Economic Advisors, Sept. 2004

II. Administrative and Support Services

This industry is part of the information, professional services and other services industry group listed on page 1. It includes a variety of industries including employment and temporary help agencies, telephone and telemarketing centers, credit bureaus, travel agencies, security, janitorial and landscaping services.

Employment in this industry topped 35,000 in March 2004 after adding jobs during the previous year. The increase in jobs was an indicator that the economy was rebounding since many employers contract for temporary help in lieu of hiring permanent workers as their workload increases.

Several employers in this industry are ranked among the WDAs top 100 for the number of jobs they provide. Two of these employers, both temporary help agencies, are ranked among the top 20. However, the majority of these employers tend to be smaller averaging only 42 workers per employer.

Because so many of the workers provide contracted services to other employers, the top 20 occupational list is a wide variety with most of them requiring only minimal training. The wages earned by workers in these occupations reflect this low training level. Half of the occupations listed have median wages below $11.00/hour and only three exceed $15.00/hour.

Top 20 Occupations in Wisconsin in Administrative and Support Services Ranked by number of jobs projected in 2012

Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Security Guards
Laborers and Freight, Stock, and Material Movers, Hand
Office Clerks, General
Packers and Packagers, Hand
Landscaping and Groundskeeping Workers
Helpers--Production Workers
Cashiers
Maids and Housekeeping Cleaners
Customer Service Representatives
Nursing Aides, Orderlies, and Attendants
Packaging and Filling Machine Operators and Tenders
Team Assemblers
Executive Secretaries and Administrative Assistants
Receptionists and Information Clerks
Telemarketers
Bookkeeping, Accounting, and Auditing Clerks
Registered Nurses
Inspectors, Testers, Sorters, Samplers, and Weighers
Crossing Guards

Source: WI DWD, Office of Economic Advisors, Sept. 2004

III. Food Services and Drinking Places

This industry is usually one of the larger employers in virtually any region; nationally, too. It is a component industry within the leisure and hospitality sector, which is projected to show slightly slower than average growth. The majority of employment this industry is in full-service and fast-food restaurants. The fact that people continue to increase their spending on food outside of the home will likely be a main contributor to the growth of this industry. Tourism is also a large driver of this industry.

The majority of occupations in this industry are in food preparation and serving related occupations, which is probably obvious. Many of this industry's jobs are entry-level and are paid commensurate to low-skilled employment. Employment durations can be very seasonal and the length of workweek weighs heavily towards part-time schedules. Census data from 2000 estimate an average workweek of about 30 hours and a work-year of about 44 weeks for those working in this regional industry.

Top 20 Occupations in Wisconsin in Food Services and Drinking Places Ranked by number of jobs projected in 2012

Waiters and Waitresses
Combined Food Preparation and Serving Workers, Including Fast Food
Bartenders
Cooks, Restaurant
Cooks, Fast Food
First-Line Supervisors/Managers of Food Preparation and Serving Workers
Dishwashers
Cooks, Short Order
Dining Room and Cafeteria Attendants and Bartender Helpers
Food Preparation Workers
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
Food Service Managers
Chefs and Head Cooks
Cashiers
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Driver/Sales Workers
General and Operations Managers
Truck Drivers, Light or Delivery Services
Bookkeeping, Accounting, and Auditing Clerks

Source: WI DWD, Office of Economic Advisors, Sept. 2004

IV. Hospitals

The majority of workers in health services are involved in direct patient care. But the list on the right also includes six occupations critical to the overall operation of hospitals, which are not related to patient care. The top two health care occupations are among the 12 occupations projected to have the most annual job openings listed in the table on page 8. And two of the occupations, medical assistants and medical records technicians, are included on the list of top 12 occupations with the greatest percent increase (also page 8). These jobs, like many in the health care field, require some formal training/certification and their hourly wages are higher than average. The average wage for all healthcare occupations in 2004 was $28.36/hour.

Employment growth in hospitals, facing industry cost pressures and increased utilization of clinics and other alternative care sites, will be the slowest within the health services industry. Spurred to reduce costs, hospitals are increasingly providing services on an outpatient or ambulatory basis. However, because of the industry's relatively large size it is projected to be the eighth largest source on new jobs during the projection period.

There are 18 hospitals in the Milwaukee area with roughly 28,500 workers. Seven are ranked among the area's top 20 employers with the most jobs and three of them are in the top ten.

Top 20 Occupations in Wisconsin in Hospitals
Ranked by number of jobs projected in 2012

Registered Nurses
Nursing Aides, Orderlies, and Attendants
Licensed Practical and Licensed Vocational Nurses
Maids and Housekeeping Cleaners
Radiologic Technologists and Technicians
Medical and Clinical Laboratory Technologists
Medical and Health Services Managers
Physical Therapists
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Respiratory Therapists
Interviewers, Except Eligibility and Loan
Medical Secretaries
Surgical Technologists
Receptionists and Information Clerks
Medical Transcriptionists
Medical Assistants
Food Servers, Nonrestaurant
Medical Records and Health Information Technicians
Secretaries, Except Legal, Medical, and Executive
Occupational Therapists

Source: WI DWD, Office of Economic Advisors, Sept. 2004

V. Professional, Scientific & Technical Services

The Milwaukee WDA is one of three regions to have this as a top five employing industry. The more detailed industries that make up this aggregate classification are varied and diverse. Seven of these detailed industries with 1,000 or more employment are (in descending order): legal services; computer systems design and related services; architectural, engineering, and related services; accounting, tax preparation, bookkeeping, and payroll services; advertising and related services; management, scientific, and technical consulting services; and other professional, scientific, and technical services. These industries combined for over 22,250 jobs in the Milwaukee WDA in 2003.

This broad industry is a prized one to economic developers mainly because it embraces newer economy ideals, oftentimes in support of the more traditional economy. The reader will notice that the list of its largest occupations are dominated by what some refer to as "knowledge workers". They tend to be in the professional ranks, require formal education and command considerably higher than average salaries. These workers and employers are coveted not only for their direct economic impact, but also for their attractiveness to other potential employers, who rank the availability of educated/skilled labor as one of their top reasons for location choice.

Top 20 Occupations in Wisconsin in
Administrative and Support Services
Ranked by number of jobs projected in 2012

Lawyers
Accountants and Auditors
Legal Secretaries
Bookkeeping, Accounting, and Auditing Clerks
Receptionists and Information Clerks
Secretaries, Except Legal, Medical, and Executive
Office Clerks, General
Veterinary Technologists and Technicians
Veterinarians
Computer Systems Analysts
Paralegals and Legal Assistants
Executive Secretaries and Administrative Assistants
First-Line Supervisors/Managers of Office & Administrative Support Workers
Veterinary Assistants and Laboratory Animal Caretakers
Tax Preparers
Photographers
General and Operations Managers
Customer Service Representatives
Computer Software Engineers, Applications
Market Research Analysts

Source: WI DWD, Office of Economic Advisors, Sept. 2004

Occupation projections

Occupational Group Summary for Milwaukee-WOW Workforce Development Area

Occupational Groups	Estimated Employment 2002	Estimated Employment 2012	2002 - 2012 Change Numeric	2002 - 2012 Change Percent	Annual average New Jobs	Annual average Replacements	Annual average Total Openings	Average hourly wage	Annual average wage
Total, All Occupations	833,200	964,300	131,100	15.7%	13,110	19,710	32,820	$17.95	$37,330
Management, Business & Financial Operations	66,750	80,670	13,920	20.9%	1,390	1,220	2,610	$34.03	$70,788
Computer, Math, Architecture & Engineering	35,310	43,670	8,360	23.7%	840	630	1,470	$28.95	$60,214
Life & Social Sciences, Legal, Art & Entertaining	39,200	46,910	7,710	19.7%	770	750	1,520	$21.38	$44,468
Education, Training, & Library	42,850	51,380	8,530	19.9%	850	900	1,750	$20.68	$43,010
Healthcare Practitioners, Technicians & Support	66,520	88,050	21,530	32.4%	2,160	1,170	3,330	$20.95	$43,572
Food Preparation & Serving	60,340	68,010	7,670	12.7%	770	2,390	3,160	$8.65	$17,990
Protective, Maintenance & Personal Care Service	68,040	83,130	15,090	22.2%	1,520	1,540	3,060	$11.71	$24,357
Sales and Related	79,650	91,140	11,490	14.4%	1,150	2,630	3,780	$16.75	$34,850
Office/Administrative Support	151,920	163,480	11,560	7.6%	1,160	3,460	4,620	$13.96	$29,040
Natural Resources, Mining & Construction	31,490	38,460	6,970	22.1%	700	630	1,330	$21.23	$44,153
Installation, Maintenance, Repair & Production	131,240	140,240	9,000	6.9%	900	3,100	4,000	$16.15	$33,585
Transportation/Material Moving	59,910	69,170	9,260	15.5%	930	1,300	2,230	$13.22	$27,500

Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, September 2004

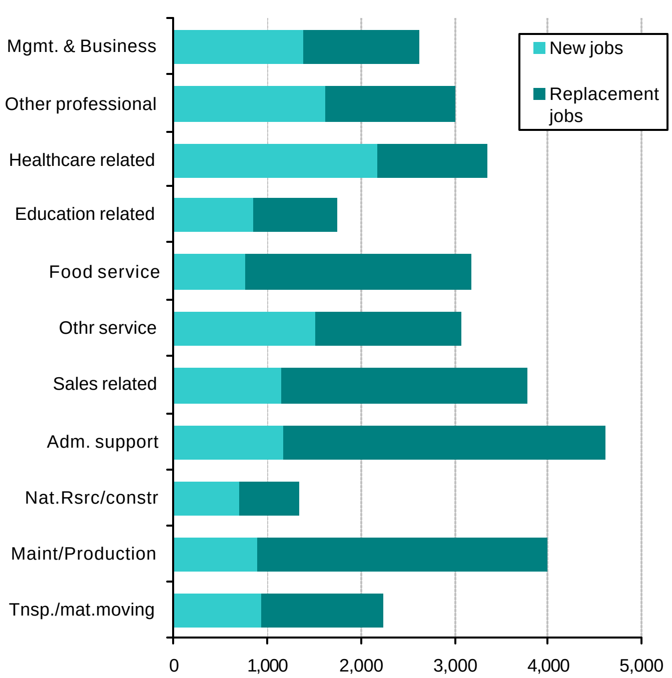
This page contains a more in-depth discussion of the Milwaukee and WOW WDAs occupational outlook. The above table presents the metro area's employment via broad occupational groups and their projected dynamics from 2002 to 2012.

Total occupational employment is projected to grow by 131,100 jobs by 2012. This equals the total industry employment growth mentioned earlier in the profile. The annual average number of new jobs, 13,110 new jobs per year, differs with the higher figure of annual average 'total openings' because total openings is a combination of both the total new jobs and replacement worker needs. Replacements are basically a "zero sum" figure in terms of job growth because replacement workers are not filling newly created jobs, but are filling existing, vacated positions. To a job seeker, it is probably irrelevant as to how a job opening becomes available, but to workforce developers this is a significant distinction.

The big picture of the future job market shows that about 60 percent of all job openings will be generated by the need for replacement workers. This pattern is not unique to the Milwaukee-WOW WDAs and the current job market likely reflects this as well. Most replacement needs are the result of a natural churn in the labor market of workers changing jobs, moving up career ladders, and worker retirement. Replacement worker needs due to retirement will become much more pervasive in the coming years.

The differences between the projected number of new jobs in occupations and their replacement needs are indicative of where the economy is heading reflecting both structural economic and demographic changes. An occupation that is creating more new jobs than it has replacement needs shows an accelerating 'economic' need or increased demand for these workers. An occupation that shows a significantly higher need for replacements than newly created jobs signifies that the occupation is a)

Annual Openings by Occupation Groups in Milwaukee-WOW WDA



Source: WI DWD, Office of Economic Advisors, September 2004

Twelve Occupations with the Most Annual Openings from 2002-2012 in Milwaukee-WOW Workforce Development Area

Occupational Title	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replace-ments	Annual average Total Openings	Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
Retail Salespersons	24,080	27,140	3,060	12.7%	310	880	1,190	1 mo. or less trng on-the-job	$10.54	$7.37 - $11.46
Cashiers	18,010	20,490	2,480	13.8%	250	880	1,130	1 mo. or less trng on-the-job	$8.00	$6.93 - $8.79
Comb Food Prep/Server/Incl Fast	13,060	15,760	2,700	20.7%	270	570	840	1 mo. or less trng on-the-job	$7.74	$6.49 - $8.68
Registered Nurses	14,780	19,540	4,760	32.2%	480	310	790	Bachelor's or Assoc. degree**	$24.46	$20.94 - $27.52
Waiters/Waitresses	11,520	13,110	1,590	13.8%	160	590	750	1 mo. or less trng on-the-job	$7.66	$6.02 - $9.05
Office Clerks/General	16,960	18,960	2,000	11.8%	200	380	580	1 mo. or less trng on-the-job	$11.86	$9.19 - $13.79
Janitors/Cleanrs Ex Maids/Hskpng	16,110	18,840	2,730	16.9%	270	310	580	1 mo. or less trng on-the-job	$10.14	$7.84 - $11.41
Labrs/Frght/Stock/Matrl Movrs/Hand	13,350	14,180	830	6.2%	80	440	520	1 mo. or less trng on-the-job	$11.03	$7.97 - $12.97
Nursing Aides/Orderlies/Attndnts	12,700	16,130	3,430	27.0%	340	170	510	1 mo. or less trng on-the-job	$10.60	$8.97 - $12.31
Customer Service Reps	13,280	16,240	2,960	22.3%	300	200	500	1-12 mo. training on-the-job	$14.86	$11.42 - $17.18
Sls Reps/Whlsl/Mfg/Ex Tech/Sci	10,670	12,780	2,110	19.8%	210	280	490	1-12 mo. training on-the-job	$27.31	$18.20 - $32.53
Receptionists/Info Clerks	7,930	10,270	2,340	29.5%	230	200	430	1 mo. or less trng on-the-job	$11.03	$8.98 - $12.97

Source: WI DWD, Office of Economic Advisors, September 2004 — * may include classroom instruction — ** depends on employer

more likely to be entry-level with a shorter–than-average job tenure, or b) is likely to be prominent in a slowly growing industry, yet is likely to have many of its older workers retiring thus creating openings for replacements.

Milwaukee-WOW's largest occupational group (broad category on previous page) will be workers in office and administrative support and 75 percent of its projected need will be for replacement workers. Installation, maintenance, repair and production workers will also continue to show a larger presence. Healthcare practitioners, technicians and support occupations show the largest percentage of their projected total openings from newly created jobs reflecting the projected large employment growth in the healthcare industry.

The table above lists specific occupations with the most projected annual openings in the Milwaukee-WOW WDAs. Generally, this list shows nothing new compared to previous projections as entry-level occupations with shorter tenures and high turnover have the most openings. The national list is likely similar. But the presence of registered nurses on this list is remarkable, not only because of the attention it receives as an occupation in dire need of more workers, but because of its fourth ranking on *this* list and it being the only listed occupation that absolutely requires post-secondary education.

The list of the region's fastest growing occupations (below) includes occupations whose percentage change will be relatively large, though the number of jobs in these occupations

Twelve Occupations with the Greatest Percent Change from 2002-2012 in Milwaukee-WOW Workforce Development Area

Occupational Title	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replace-ments	Annual average Total Openings	Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
Netw Systms/Data Comm Analysts	970	1,570	600	61.9%	60	10	70	Bachelor's degree	$26.86	$21.36 - $32.33
Medical Assts	1,890	3,030	1,140	60.3%	110	40	150	1-12 mos. training on-the-job	$13.19	$11.50 - $14.33
Physician Assistants	340	540	200	58.8%	20	10	30	Bachelor's degree	$32.43	$29.92 - $35.04
Medcl Records/Health Info Techs	1,230	1,920	690	56.1%	70	20	90	Associate degree	$13.51	$10.14 - $16.43
Comptr Soft Engnrs Systms Soft	1,020	1,580	560	54.9%	60	10	70	Bachelor's degree	$35.25	$26.67 - $42.21
Physical Therapist Aides	250	380	130	52.0%	10	0	10	1 mo. or less trng. on-the-job	$10.76	$8.56 - $12.67
Home Health Aides	4,130	6,250	2,120	51.3%	210	50	260	1 mo. or less trng. on-the-job	$9.72	$8.37 - $10.51
Social/Human Service Assts	2,510	3,750	1,240	49.4%	120	40	160	1-12 mos. training on-the-job	$12.63	$10.03 - $14.91
Personal and Home Care Aides	6,320	9,390	3,070	48.6%	310	100	410	1 mo. or less trng. on-the-job	$9.29	$8.53 - $10.25
Respiratory Therapy Techs	230	340	110	47.8%	10	0	10	Postsecondary vocational trng.	$17.69	$14.47 - $20.76
Personal Financial Advisors	720	1,060	340	47.2%	30	10	40	Bachelor's degree	$39.07	$18.24 - $50.16
Environmental Engineers	280	410	130	46.4%	10	10	20	Bachelor's degree	$32.48	$25.40 - $40.22

Source: WI DWD, Office of Economic Advisors, September 2004 — * may include classroom instruction — ** depends on employer may not necessarily become numerically large in spite of fast growth. For example, an additional 110 respiratory therapy technicians in the area by 2012 represents an increase of 48 percent, but the increase in these jobs will only push the total to just over 340 of these workers; not a large occupation, but one that is quickly growing in response to need. One will notice that the majority of these fastest growing occupations are related to healthcare. Collectively, fast growing healthcare occupations will increase by 52 percent adding 7,500 jobs by 2012.

Education

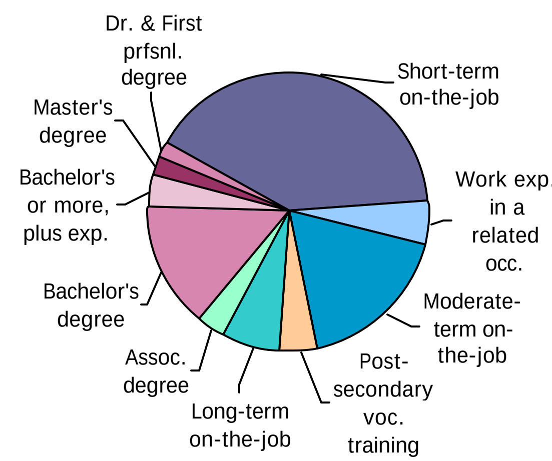
One of the more perpetuated myths about the future labor market is that the majority of the nation's (and region's) jobs will require a four-year college degree, minimum. This is a false notion evidenced by the table at the bottom of this page. While it is true that more jobs than currently will require a bachelor's degree or higher by 2012, the fact remains that most occupations and at least 58 percent of the region's total job openings will only require short- or moderate-term on the job training. Job openings requiring a bachelor's degree or higher will comprise about 23 percent of total openings. Compared to the statewide average, the Milwaukee-WOW region's share of total job openings requiring a bachelor's degree or higher education is a bit higher than state average. This is likely due to the metro area's higher than average portion of professional employment, which generally requires post-secondary educational attainment.

An irrefutable fact is the positive correlation between higher wages and higher educational attainment. More education does not guarantee higher wages, but it does afford more opportunity to work in higher paying occupations. Many of these opportunities will be in newly created jobs in response to the labor market's evolving needs as opposed to being replacement needs.

From an economic development point of view, well-established and newer industries are either utilizing or are essentially based upon creating or implementing new technologies. In fact, one would be hard pressed to name a single industry that has not embraced some form of technological innovation in the name of an improved productivity and efficiency. These technological changes not only require educated and skilled workers, but require at least a modicum of workers with highly specific, intricate education. Employers base their location or expansion decisions upon the pool of available workers with the right skills and education. The availability of a skilled and educated workforce bind economic and workforce development because both are fundamental in attracting and retaining employers. Knowing the education and skills required, today, for tomorrow's jobs will help workers and employers make the best decisions for themselves.

The complete list of occupational projections can be found at http://dwd.wisconsin.gov/oea/wda/projections/se.htm.

Distribution of Total Openings in Milwaukee-WOW WDA by Training Path



Typical Education or Training Path* for Jobs in Milwaukee-WOW Workforce Development Area

Education or Training	Number of Occupations	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replacements	Annual average Total Openings	Distribution of Total Openings
Total	746	833,210	964,310	131,100	15.7%	13,140	19,730	32,870	100.0%
Associate degree	36	24,440	30,670	6,230	25.5%	630	430	1,060	3.2%
Bachelor's degree	108	116,120	142,710	26,590	22.9%	2,670	2,230	4,900	14.9%
Master's degree	37	17,340	20,850	3,510	20.2%	350	360	710	2.2%
First professional degree	16	8,630	10,870	2,240	26.0%	230	140	370	1.1%
Doctoral degree	40	5,300	6,920	1,620	30.6%	160	120	280	0.9%
Long-term on-the-job training	82	60,100	68,330	8,230	13.7%	830	1,320	2,150	6.5%
Moderate-term on-the-job training	168	181,690	201,710	20,020	11.0%	2,000	3,820	5,820	17.7%
Short-term on-the-job training	136	306,020	349,870	43,850	14.3%	4,380	8,940	13,320	40.5%
Bachelor's degree or more, plus work exp.	30	30,780	36,740	5,960	19.4%	600	570	1,170	3.6%
Work exp. in a related occupation	42	46,750	53,660	6,910	14.8%	690	990	1,680	5.1%
Postsecondary vocational training	51	36,040	41,980	5,940	16.5%	600	810	1,410	4.3%

* This provides a general indication of the education or training typically needed in occupations. There may be other pathways.

Source: WI DWD, Office of Economic Advisors, September 2004

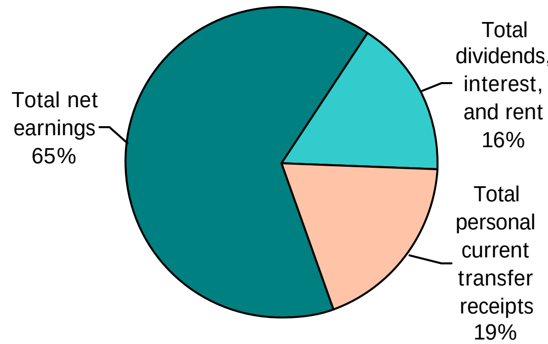
Total personal income

Total personal income is the sum of residential net wage and salary earnings; earnings from dividends, interest and rental property; and receipts from transfer payments. The majority of total personal income composition, on average, is job earnings. The smallest portion of income is typically transfer payments, which includes old-age retirement and veterans benefits, government-paid medical reimbursements, and income maintenance program payments.

The Milwaukee WDA total personal income is composed proportionately lower than average in wage earnings, 65 percent versus the state's average of 68 percent of total personal income. In fact, its share of income from net earnings is the second lowest percentage among the state's eleven WDAs. It is tied for the lowest percentage of income obtained via dividends, interest and rental property income. The WDAs largest compositional difference to the statewide average is its high percentage of income obtained via transfer payments. These composed 19 percent of its total personal income compared to the statewide share of 14 percent. In fact, the Milwaukee WDA shows the highest per capita transfer payments of all WDAs.

The table below lists various Milwaukee WDA income components and compares them to state and national data and examines them over a five-year period. Worth noting is the fact that the region's total personal income lagged both the statewide and national rates of growth, yet its per capita personal income (PCPI) growth rate exceeded both the state and nation's.

Major Components of Total Personal Income in 2002 in Milwaukee Workforce Development Area



Source: Special tabulation by WI OEA & US BEA files

The region's slower total income growth compared to its faster per capita growth is rooted in definitional issues. Total personal income growth measures total dollars, whereas the per capita income measurement adds another dimension measuring total dollars and dividing it by the total population, hence 'per capita'. Therefore, a measured change in a per capita figures not only accounts for a change in dollar amounts, but it also accounts for changes in population. Normally, a loss of population over short period of time

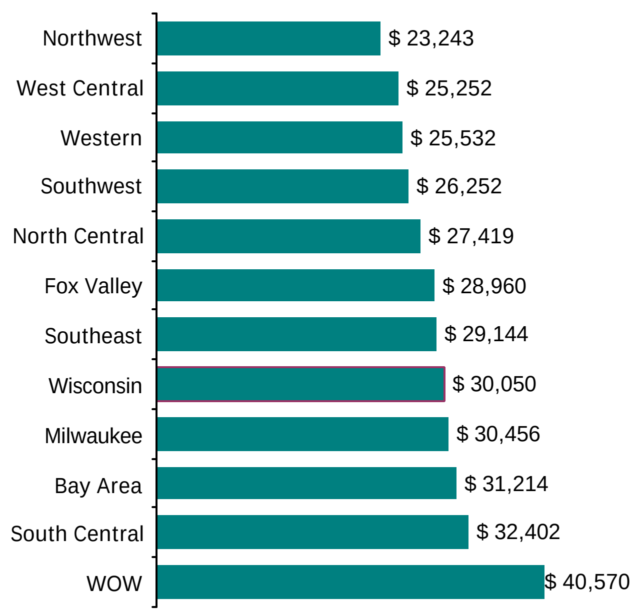
Total Personal Income in Milwaukee Workforce Development Area

			% Change from 1997 to 2002		
	1997	2002	Milwaukee	Wisconsin	United States
Population	945,453	934,788	-1.1%	3.3%	5.6%
Total Personal Income (in thousands)	$23,332,168	$28,469,565	22.0%	26.6%	28.8%
Net Earnings	$15,002,490	$18,485,376	23.2%	27.6%	30.4%
Dividends, Interest, and Rental Income	$4,400,886	$4,652,184	5.7%	14.9%	18.4%
Transfer Receipts	$3,928,792	$5,332,005	35.7%	39.4%	35.8%
Income Maintenance	$567,197	$821,803	44.9%	29.1%	21.3%
Unemployment insurance benefit payments	$89,507	$231,218	158.3%	147.2%	166.1%
Social security, disability & other govt. compensation	$3,272,088	$4,278,984	30.8%	36.9%	34.4%
Per Capita Personal Income	$24,678	$30,456	23.4%	22.6%	22.0%
Per Capita Net Earnings	$15,868	$19,775	24.6%	23.5%	23.4%
Per Capita Dividends, Interest, and Rental Income	$4,655	$4,977	6.9%	11.3%	12.1%
Per Capita Transfer Receipts	$4,155	$5,704	37.3%	35.0%	28.6%
Total Employment (see glossary)	611,650	607,120	-0.7%	5.0%	7.3%
Wage and salary jobs	561,413	551,298	-1.8%	4.3%	5.9%
Number of non-farm proprietors	50,160	55,747	11.1%	11.2%	16.0%
Average earnings per job	$35,381	$43,147	22.0%	21.0%	21.2%
Average wage & salary disbursements	$30,336	$36,104	19.0%	19.0%	21.1%
Average nonfarm proprietors income	$24,167	$37,676	55.9%	37.0%	24.7%

Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis, May 2004 boosts per capita income of the remaining population. The chart on page 12 shows that the Milwaukee WDA was the only WDA in the state to lose population in the last four years. However, It was not the only WDA to post five-year changes in PCPI that were greater than the state and nation. In other WDAs where the PCPI rose faster than in the state and nation there was a corresponding rise in total personal income. In the Milwaukee WDA all three major components of total personal income increased at a slower pace than counterpart components of the state and nation.

Total net earnings of residents in the Milwaukee WDA increased 23.2 percent from 1997 to 2002, considerably

Per Capita Personal Income by WDA



Source: US Dept. of Commerce, Bureau of Economic Analysis

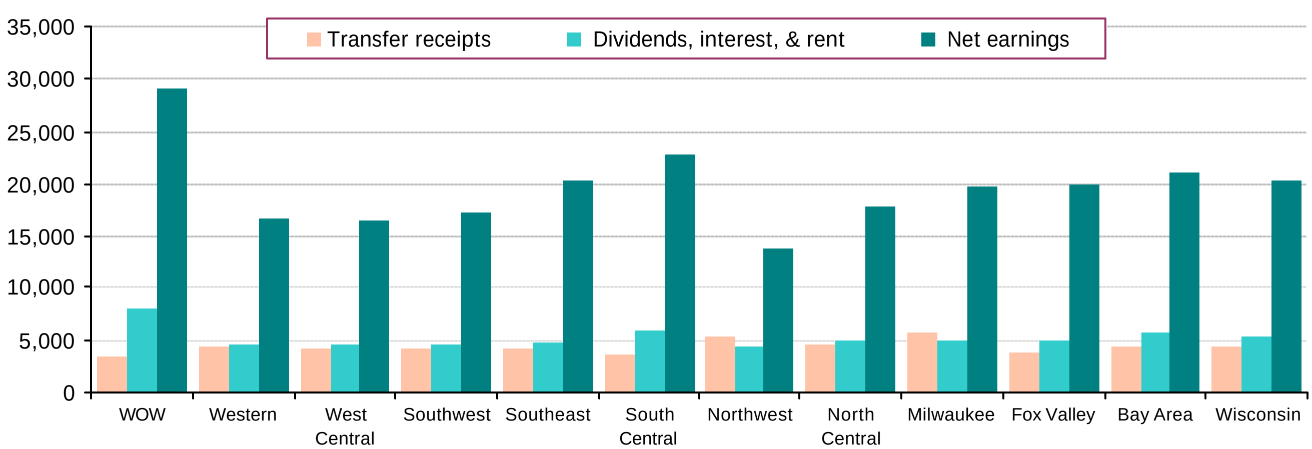
slower state, nation and its neighboring counties that comprise the WOW WDA. The all-industry average wage from employers in the Milwaukee WDA (page 3; $37,942) is higher than the average wage in WOW of $37,110, but census commuting patterns showed that over 90,000 workers traveled from WOW counties into Milwaukee County for jobs and their earnings are assigned to their place of residence. The average annual wage of these commuters was over $50,000. There is high-paying work in Milwaukee, but many commuters are holding these jobs.

The lagging increase in total net earnings by Milwaukee residents was also affected by plant closings and layoffs in Milwaukee. In the last year alone, job losses affected over 7,000 workers (page 3), which was a major impetus in its increased income via transfer payments, especially from unemployment insurance and income maintenance payments. Its per capita income from transfer payments, $5,704, is the highest among the eleven WDAs. For the record, the largest source of transfer payments nationally is from Social Security. Milwaukee WDAs increase in Social Security income was slower than average due to its relatively larger share of younger population in the area. This last statement is a positive note for the WDA.

Milwaukee's larger than average share of younger population (the highest share of all WDAs with 22% of the population under the age of 15) affect income due to the fact most of these children contribute little or nothing to total personal income, yet are still factored into the per capita personal income formula. This is another reason that the PCPI is lower in Milwaukee than in surrounding areas.

The chart below displays the per capita measurement for each major personal income component for every workforce development area. Per capita net wage earnings greatly exceed per capita transfer receipts and per capita earnings from dividends, interest and rental property income in every region.

Per Capita Income by Major Components of Total Personal Income: 2002



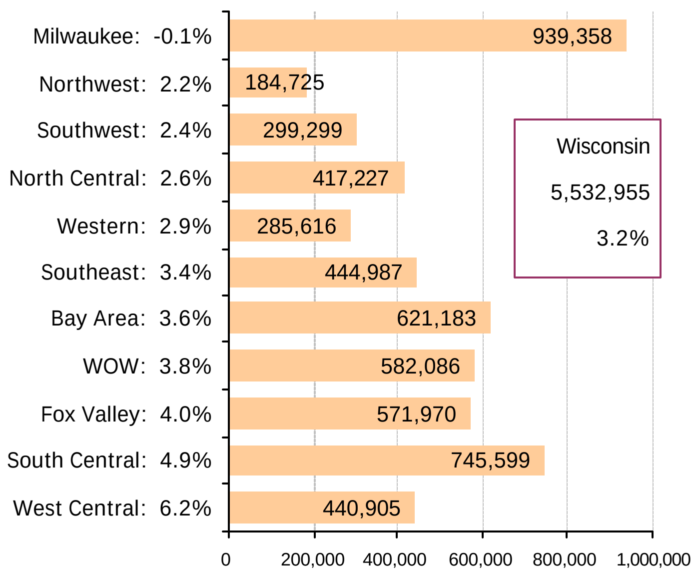
Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis

Connecting the Elements

Population dynamics have always been key in workforce and economic development. This section focuses on how these dynamics comment on labor availability.

The Milwaukee WDA population numbered close to 939,400 residents in 2004, which was the most populous in

2004 WDA Population and Percent Change from 2000



Source: WI Dept. of Administration, Demorgraphic Services Center

Wisconsin representing 17.0 percent of the total population. The region remains the most populous in the state in spite of its loss of roughly 800 residents from 2000 to 2004. This decline of 0.1 percent over this period reflects a trend in the area that started decades ago as city-dwellers relocated to the suburbs.

Population change is the net result of two occurrences, migration and natural change. A fundamental understanding of these occurrences trumps a simple rate of population change. The region's net loss of 806 residents over the last four years was the result of an increase of 20,829 residents from natural causes (more births than deaths), yet this gain was offset by the net loss of 21,635 residents due to migration (more moved out of the area than into it).

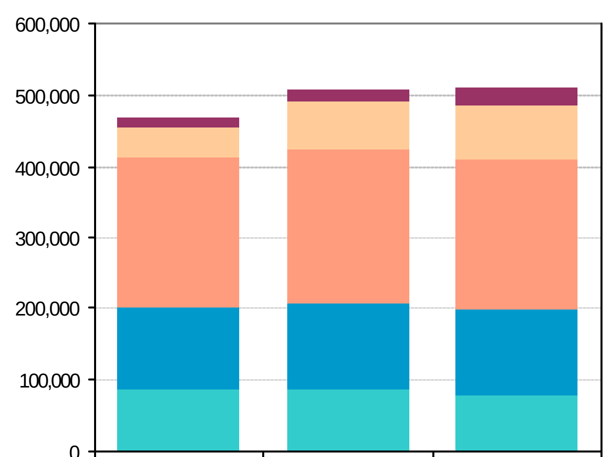
Current and forthcoming development endeavors, be they economic or workforce development, must have a keen eye on particular demographic features and anticipated changes in the WDA population. This is especially critical in light of the county's projected age composition and its likely effects on consumer behavior and labor availability.

The Milwaukee WDA population is projected to increase in each of the three upcoming decades beginning in 2000 and ending in 2030 as the number of births out-paces the number of deaths and as out-migration slows. Nearly half-way through the first decade, evidence is showing that a reversal of historic trends may be occurring, but not at the pace that has been forecast over the long-term. In 2002 and 2003, the county's estimated net change in population was positive even though the current estimate once again shows a decline from 2000-2004. Natural population growth in the WDA is projected to increase through 2030, while the projected changes due to migration continue to be negative.

The average age in the Milwaukee WDA of 35.6 years in 2000, the second youngest average age among the WDAs, and no single age group dominates the demographic picture. The two largest age groups currently in Milwaukee County, with shares of 7.6 and 7.8 percent the population, are those aged 0-4 years and 25-29 years, respectively. Every other age group under 60 years follows relatively close behind these levels.

In terms of labor force, the Milwaukee WDA is more fortunate than other parts of the state because of its relatively younger population providing potential workers to fill newly created jobs and replacement needs over the short-term. But the Milwaukee WDA will not entirely escape labor shortages

Milwaukee WDA Labor Force Projections by Age



	2000	2010	2020
65+	14,224	16,041	23,219
55-65	41,561	67,481	76,505
35-54	212,756	217,638	212,056
25-34	115,191	119,846	120,528
16-24	85,631	86,155	77,805
Total	469,362	507,161	510,114
Decade change	**2.4%**	**8.1%**	**0.6%**

Source: DWD, Office of Economic Advisors, August 2004 due to an aging population.

There has been much discussion of Wisconsin's aging population. Frankly, this is a national issue, too, but it is likely to become a more salient one in the Midwestern United States. Much of the discussion has revolved around the life stage movement of the historically large baby boomer population (those born between 1946 and 1964) comparing it to its two smaller, succeeding generations. To put the size of the aging baby boomer generation into perspective, currently one out of every ten Milwaukee WDA residents is aged 66 to 84 years. By 2030, when the baby boomers reach this age range, they will comprise almost one out of every six county residents.

Broad age group analysis of the Milwaukee WDA shows that those aged 19 years and younger will decrease by one percent from 2005 to 2030. The number of those between 20 and 59 years, ones' prime working years, will decrease by two percent. And the number of residents aged 60 years and older is projected to increase by 58 percent. From a compositional view, those aged 19 years and younger will decrease from 29 percent of the population in 2005 to 26 percent by 2030. Those 20 to 59 years old will decrease from 55 percent to 50 percent of the population. And the number of those aged 60 years and older will increase from 16 to 23 percent of all Milwaukee County's residents. Overall population growth from 2005 to 2030 is projected to be eight percent; considerably slower than the state's 15 percent growth projection.

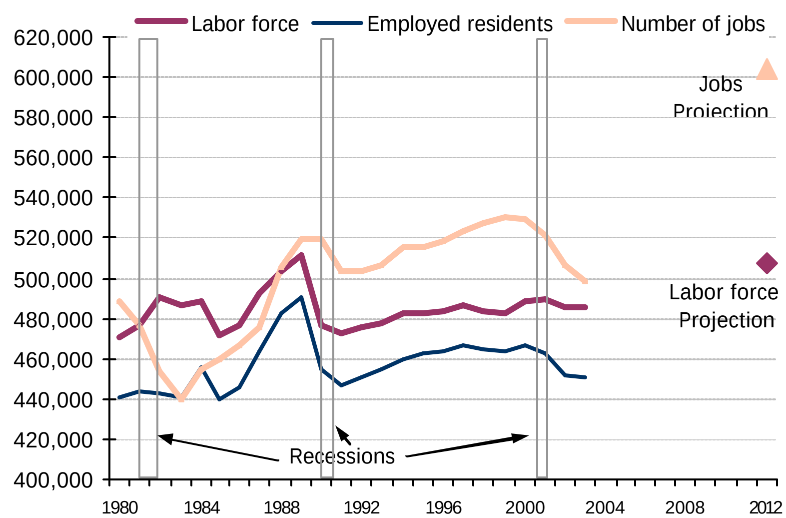
Pairing Milwaukee WDAs population projections to its labor force participation rates (LFPR) by age helps to provide a rough forecast of the county's labor force composition by age (graphed on the bottom of page 12). Overall, the Milwaukee WDA labor force is not projected to decline as it is in some regions, but it is forecasted to grow slowly in the coming decades. The county's labor force is projected to grow close to nine percent from 2000-2020, which is actually a bit faster than the projected eight percent total population growth over the same period. The bulk of this projected labor force growth will likely occur sooner rather than later as the projected labor force only increases 0.6 percent between 2010 and 2020.

The graph below incorporates the dramatic past and future changes in the WDA labor market giving the reader a simple picture of how dynamic the county's labor market has been in its number of jobs and labor force. The reader will notice that the number of jobs in the Milwaukee WDA has exceeded its total labor force for close to 20 years, which is a comment on its residential movement out of the county, most of whom keeping their Milwaukee employment. It also demonstrates the fact that urban/metropolitan job growth has accelerated creating higher job-density and the imperative for commuting workers to meet labor needs.

One should note that job growth in the county has slowed over the years and even declined in a few of them, particularly in recent years. Despite job loss, the county has the fastest job growth projection of any WDA. It will continue to be the state's job base. Its slower growth labor force forecast is in stark contrast to its projected fast job growth.

The adjacent WOW counties are an integral portion of the metropolitan market so one cannot do a complete analysis of the Milwaukee WDA labor market without considering the WOW WDA, both for its workers and for its job-base, to which more Milwaukee residents are commuting.

Historic & Projected Labor Force & Jobs in Milwaukee WDA



Source: WI DWD, Bureau of Workforce Information & Office of Economic Advisors

The workforce development profiles are produced by the Office of Economic Advisors in the Wisconsin Department of Workforce Development. The author of this profile and regional contact for additional labor market information is:

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